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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kar Yan Tam

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BUCHANAN, INGERSOLL & ROONEY PC  
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EXAMINER

LANIER, BENJAMIN E

ART UNIT

PAPER NUMBER

2132

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/965,831

Applicant(s)

TAM ET AL.

Examiner

Benjamin E. Lanier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed 07 December 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: said watermarking information is embedded across said at least two sections and said key is embedded across said at least two sections.
2. Applicant's specification specifically recites that the key resides in only one section (see paragraph 30 of the published application). The application does not specify that the both sections of the audio signal contain portions of the watermark.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Response to Arguments***

3. Applicant's arguments filed 07 December 2006 have been fully considered but they are not persuasive. Applicant's argument that "because both the Metadata SC and Content SC files do not both contain audio content the Downs patent fails to meet the claimed element of sectioning a watermark signal into at least two sections each section having audio content," is not persuasive because Downs discloses that the actual audio file contains a metadata section and a content section (Col. 23, lines 36-39). The metadata section also includes data (Col. 58, line 4). Therefore, Downs clearly shows that the metadata section and the content section contain audio, and meet the claim limitations.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 31-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The added material which is not supported by the original disclosure is as follows: said watermarking information is embedded across said at least two sections and said key is embedded across said at least two sections.

6. Applicant's specification specifically recites that the key resides in only one section (see paragraph 30 of the published application). The application does not specify that the both sections of the audio signal contain portions of the watermark.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 33 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 33 is indefinite because the claim does not cover the scenario where there is not more than one section. The claim has a condition "if there is more than one section," but does not have a condition for the alternative.<sup>9</sup>

***Claim Rejections - 35 USC § 102***

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10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1, 3-5, 8-13, 16-30, 33, are rejected under 35 U.S.C. 102(e) as being anticipated by Downs, U.S. Patent No. 6,226,618. Referring to claim 1, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of incorporating watermarking information into said audio signal, marking at least one said section whereby said sections may be identified. The watermark can survive several steps of content processing (Col. 22, lines 4-8), which meets the limitation of a robust watermark. The audio file is distributed in a content object that contains a metadata section and a content section (Col. 23, lines 36-39), which meets the limitation of sectioning said signal into at least two sections. The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of generating distortion in one said section of said signal in a manner recoverable by a key obtainable from at least one other said section. Only a portion of the metadata section is encrypted (Col. 18, step 125). The encrypted content and all the metadata is combined into a content package (Col. 18, step 127), which meets the limitation of appending said distorted section to said at least one other section to form a composite signal comprising a distorted section and at least one undistorted section. The key for decrypting the encrypted section is contained in a metadata section (Col. 18, step 126), which also contains audio data (Col. 58, line

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4). Therefore, the metadata section of Downs reads on the amended claim limitations requiring at least two sections each having audio content. Downs discloses that the key is embedded in the metadata section of the audio data (Col. 18, step 126). The key is retrieved from the metadata section to enable playback (Col. 19, steps 144-148), which meets the limitation of the fragile watermark layer as discussed, in detail above.

Referring to claims 2, 5, 8, Downs discloses that the symmetric key is included in the metadata section (Col. 23, lines 35-36) and the metadata section is appended to the content identified by a content identifier, which meets the limitation of said key is embedded in said at least one other said section by means of said watermarking information, said key is obtained directly from a sequence of bits contained in said at least one other said section.

Referring to claim 3, Downs discloses that the symmetric key is randomly generated (Col. 15, lines 63-65), which meets the limitation of said distortion is generated by creating a pseudo-random number sequence for adding as pseudo-random noise to said first said section, and wherein said pseudo-random number sequence is embedded in said at least one other section to enable said random noise to be subsequently removed.

Referring to claim 4, encryption is a form of scrambling.

Referring to claim 9, Downs discloses the content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of said first section comprises a section to which access is to be restricted.

Referring to claim 10, Downs discloses the content can contain a store advertisement object (Col. 85, line 50).

Referring to claim 11, Downs discloses that the metadata section contains usage rights that specify the number of plays allowed for the content (Col. 21, lines 25-29), which meets the limitation of said at least one other section comprises a trial listening section.

Referring to claim 12, Downs discloses the content can contain a store advertisement object (Col. 85, line 50) and that the metadata section contains usage rights that specify the number of plays allowed for the content (Col. 21, lines 25-29), which meets the limitation of at least one other section comprises an advertisement section and a trial listening section.

Referring to claim 13, Downs discloses that the watermarked audio signal is compressed (Col. 18, step 125).

Referring to claim 16, Downs discloses that once the user receives the content package that the user retrieves the symmetric key and the then decrypts the content file (Col. 19, steps 144-148), which meets the limitation of reading said composite signal, identifying said sections, obtaining said key from said at least one undistorted section, and recovering said distorted section.

Referring to claim 17, Downs discloses that decryption is performed in real-time (Col. 82, line 52).

Referring to claims 18, 19, Downs discloses that the content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of the audio signal comprising at least two sections, including a first section which is distorted in a manner recoverable by means of a key obtainable from at least one other section, said first section is a section to which access is restricted. The key for decrypting the encrypted section is contained in a metadata section (Col. 18, step 126), which also contains audio data

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(Col. 58, line 4). Therefore, the metadata section of Downs reads on the amended claim limitations requiring at least two sections each having audio content.

Referring to claim 20, Downs discloses the content can contain a store advertisement object (Col. 85, line 50).

Referring to claim 21, Downs discloses that the metadata section contains usage rights that specify the number of plays allowed for the content (Col. 21, lines 25-29), which meets the limitation of said at least one other section comprises a trial listening section.

Referring to claim 22, Downs discloses the content can contain a store advertisement object (Col. 85, line 50) and that the metadata section contains usage rights that specify the number of plays allowed for the content (Col. 21, lines 25-29), which meets the limitation of at least one other section comprises an advertisement section and a trial listening section.

Referring to claim 23, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of means for incorporating watermarking information into said audio signal, means for marking at least one said section whereby said sections may be identified. The audio file is distributed in a content object that contains a metadata section and a content section (Col. 23, lines 36-39), which meets the limitation of means for sectioning said signal into at least two sections. The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of means for generating distortion in one said section of said signal in a manner recoverable by a key obtainable from at least one other said section. Only a portion of the metadata section is encrypted (Col. 18, step 125). The encrypted content and all the metadata is combined into a content package (Col. 18, step 127),

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which meets the limitation of means for appending said distorted section to said at least one other section to form a composite signal comprising a distorted section and at least one undistorted section. The key for decrypting the encrypted section is contained in a metadata section (Col. 18, step 126), which also contains audio data (Col. 58, line 4). Therefore, the metadata section of Downs reads on the amended claim limitations requiring at least two sections each having audio content. Downs discloses that the key is embedded in the metadata section of the audio data (Col. 18, step 126). The key is retrieved from the metadata section to enable playback (Col. 19, steps 144-148), which meets the limitation of the fragile watermark layer as discussed, in detail above.

Referring to claim 24, Downs discloses that once the user receives the content package that the user retrieves the symmetric key and then decrypts the content file (Col. 19, steps 144-148), which meets the limitation of reading said composite signal, identifying said sections, obtaining said key from said at least one undistorted section, and recovering said distorted section.

Referring to claim 25, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of incorporating watermarking information into said audio signal, marking at least one said section whereby said sections may be identified. The audio file is distributed in a content object that contains an advertisement object and a content section (Col. 23, lines 36-39 & Col. 85, line 50), which meets the limitation of including an advertisement with audio data in an audio signal comprising, sectioning said signal into a first section and an advertisement section. The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of generating distortion of said first section in manner

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recoverable by a key obtainable from said advertisement section, and appending said distorted first section to said advertisement section. The key is retrieved from the metadata section to enable playback (Col. 19, steps 144-148), which meets the limitation of the fragile watermark layer as discussed, in detail above.

Referring to claim 26, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of incorporating watermarking information into said audio signal, marking at least one said section whereby said sections may be identified. The audio file is distributed in a content object that contains a metadata section containing usage rights that specify the number of plays allowed for the content (Col. 21, lines 25-29) and a content section (Col. 23, lines 36-39 & Col. 85, line 50), which meets the limitation of including a trial listening section with audio data in an audio signal comprising, sectioning said signal into a first section and a trial listening section. The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of distortion of said first section in a manner recoverable by a key obtainable from said trial listening section, and appending said distorted first section to said advertisement section. The key is retrieved from the metadata section to enable playback (Col. 19, steps 144-148), which meets the limitation of the fragile watermark layer as discussed, in detail above.

Referring to claim 27, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of incorporating watermarking information into said audio signal, marking at least one said section whereby said sections may be identified. The audio file is distributed in a

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content object that contains an advertisement object, a metadata section containing usage rights that specify the number of plays allowed for the content (Col. 21, lines 25-29) and a content section (Col. 23, lines 36-39 & Col. 85, line 50), which meets the limitation of including an advertisement object and a trial listening section with audio data in an audio signal comprising, sectioning said signal into a first section, an advertisement object and a trial listening section. The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of distortion of said first section in a manner recoverable by a key obtainable from at least one of said advertisement object, trial listening section, and appending said distorted first section to said advertisement section and trial listening sections for form a composite signal. The key is retrieved from the metadata section to enable playback (Col. 19, steps 144-148), which meets the limitation of the fragile watermark layer as discussed, in detail above.

Referring to claim 28, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of incorporating watermarking information into said audio signal, marking at least one said section whereby said sections may be identified. The audio file is distributed in a content object that contains a metadata section and a content section (Col. 23, lines 36-39), which meets the limitation of sectioning said signal into at least two sections. The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of generating distortion in one said section of said signal in a manner recoverable by a key obtainable from at least one other said section. Only a portion of the metadata section is encrypted (Col. 18, step 125). The encrypted content and all the metadata is

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combined into a content package (Col. 18, step 127), which meets the limitation of appending said distorted section to said at least one other section to form a composite signal comprising a distorted section and at least one undistorted section. The key for decrypting the encrypted section is contained in a metadata section (Col. 18, step 126), which also contains audio data (Col. 58, line 4). Therefore, the metadata section of Downs reads on the amended claim limitations requiring at least two sections each having audio content. Downs discloses that the key is embedded in the metadata section of the audio data (Col. 18, step 126). The key is retrieved from the metadata section to enable playback (Col. 19, steps 144-148), which meets the limitation of the fragile watermark layer as discussed, in detail above.

Referring to claim 29, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of incorporating watermarking information into said media content signal, marking at least one said section whereby said sections may be identified. The watermark can survive several steps of content processing (Col. 22, lines 4-8), which meets the limitation of a robust watermarking technique to form a watermarked media content signal. The audio file is distributed in a content object that contains a metadata section and a content section (Col. 23, lines 36-39). The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), which meets the limitation of generating distortion in at least a part of said watermarked media content signal in a manner recoverable by a key. Only a portion of the metadata section is encrypted (Col. 18, step 125). The encrypted content and all the metadata is combined into a content package (Col. 18, step 127). The key for decrypting the encrypted section is contained in a metadata section (Col. 18, step 126), which also contains

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audio data (Col. 58, line 4), which meets the limitation of embedding said key in at least a part of said watermarked media content signal. Therefore, the metadata section of Downs reads on the amended claim limitations requiring at least two sections each having audio content. Downs discloses that the key is embedded in the metadata section of the audio data (Col. 18, step 126). The key is retrieved from the metadata section to enable playback (Col. 19, steps 144-148), which meets the limitation of a fragile data hiding technique, whereby if said watermarking information is corrupted, altered or removed said embedded key is rendered unobtainable from said media content signal.

Referring to claim 30, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of said media content signal is an audio signal.

Referring to claims 33-35, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125), which meets the limitation of a watermark layer comprising watermark information, media content is audio content. The watermark can survive several steps of content processing (Col. 22, lines 4-8), which meets the limitation of a robust watermarking technique. The audio file is distributed in a content object that contains a metadata section and a content section (Col. 23, lines 36-39), which meets the limitation of a media content layer having one or more sections comprising media content. The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127). Only a portion of the metadata section is encrypted (Col. 18, step 125), which meets the limitation of said section or at least one of said sections if there is more than once section, being distorted in a manner recoverable by use of said key in the

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fragile quality control layer. The encrypted content and all the metadata is combined into a content package (Col. 18, step 127). The key for decrypting the encrypted section is contained in a metadata section (Col. 18, step 126), which also contains audio data (Col. 58, line 4), which meets the limitation of a fragile quality control information layer comprising a key, said key is embedded in said audio content of said at least one other section. Therefore, the metadata section of Downs reads on the amended claim limitations requiring at least two sections each having audio content. Downs discloses that the key is embedded in the metadata section of the audio data (Col. 18, step 126). The key is retrieved from the metadata section to enable playback (Col. 19, steps 144-148), which meets the limitation of if said robust watermark layer is altered, deleted or corrupted the fragile quality control information layer is rendered unreadable such that said key cannot be obtained from it, said key is embedded using a fragile data hiding technique.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 6, 7, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Downs, U.S. Patent No. 6,226,618, in view of Schneier. Referring to claims 6, 7, Downs discloses that the content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127), but does not disclose encrypting using a hash output. Schneier discloses a method of symmetric encryption that hashes the file to be encrypted and then encrypts the file using the hash output (Pages 351-353). It would have been obvious to one of ordinary skill in the art at the time the invention was made to encrypt the audio files of Downs using the output of the audio file hashes because that encryption process performs faster than other symmetric encryption algorithms as taught in Schneier (Page 355).

Referring to claim 14, Downs discloses that the watermarked audio signal is compressed (Col. 18, step 125).

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Downs, U.S. Patent No. 6,226,618, in view of Jones, U.S. Patent No. 6,697,944. Referring to claim 15, Downs discloses compressing the audio files using mpeg compression algorithms, but does not specify mpeg layer 3 compression. It would have been obvious to one of ordinary skill in the art at the time the invention was made for the electronic distribution system of Downs to use mpeg layer 3 compression because at the time of Downs invention mpeg layer 3 compression was widely the most used form of audio compression as taught by Jones (Col. 1, line 66 – Col. 2, line 1).

16. Claims 31, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Downs, U.S. Patent No. 6,226,618, in view of Rhoads, U.S. Patent No. 5,636,292. Referring to claims 31, 32, Downs discloses an electronic content delivery system wherein an uncompressed audio file is watermarked with identification data (Col. 18, steps 121-125). The audio file is distributed

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in a content object that contains a metadata section and a content section (Col. 23, lines 36-39). The content is encrypted using a symmetric key that is packed along with the content (Col. 18, steps 125-127). Only a portion of the metadata section is encrypted (Col. 18, step 125). The encrypted content and all the metadata is combined into a content package (Col. 18, step 127). The key for decrypting the encrypted section is contained in a metadata section (Col. 18, step 126), which also contains audio data (Col. 58, line 4). Downs does not specify that the watermark is embedded throughout the audio signal. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to embed the watermark and key information throughout the audio signal so that the watermark and key could be retrieved from even a fraction of the audio signal as taught by Rhoads (Col. 2, lines 1-9).

### *Conclusion*

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E. Lanier whose telephone number is 571-272-3805.

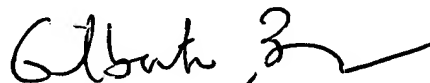
The examiner can normally be reached on M-Th 7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Benjamin E. Lanier



**GILBERTO BARRON JR**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**